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A BOTANICAL RIDDLE

I

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We are all familiar with that peculiarly exasperating form of riddle which consists in asking a victim to guess what an object with certain given characteristics is; then when the victim has given up and on being told the answer protests that the object named does not possess one of the given characteristics, he is told that this characteristic was added to make the riddle hard.

To suspect that any botanist ever knowingly did a similar thing in describing a species is not in my thoughts. But that it has been unwittingly done I believe cane be made evident.

In 1768 Miller (Gard. Dict. Ed. 8 Viburnum No. 8) gave a binomial name to a species of *Viburnum* which previously he had treated under the old polynomial system of nomenclature. The identity of this species, which he called *Viburnum americanum*, long was a source of trouble to American botanists. A few years ago Dr. S. F. Blake (Rhodora 20: 14–15. 1918) noted that he had seen a specimen of *Viburnum americanum* Miller in the British Museum and that it was *Hydrangea arborescens* L.

Blake can not however have consulted Miller's description or he would at once have noted that while the description does fully answer *Hydrangea arborescens* until near the end, yet near the end Miller added that the plant has red oval berries! How Miller came to do this is not possible to say. He placed his *Viburnum americanum* immediately after his description of the European *Viburnum opulus* L. (which has red berries) and probably either assumed that his plant must have red berries (instead of the capsule which it has), or he got some fruit of *Viburnum opulus* mixed up with it. Miller's material came from Thomas Dale of Charleston, South Carolina, the author of an unpublished manuscript listed by Miller in the list of works

consulted by him as "Thomas Dale's Observations on many new Plants which he discovered in America." No American species of *Viburnum* with red fruit is found anywhere near Charleston, and Miller's description applies to no species of Viburnum.

II

Miller's description of *Viburnum americanum* is as follows:

"8. VIBURNUM (*Americanum*) foliis cordato-ovatis acuminatis serratis, petiolis longissimis laevibus. *Way-faring-tree with heart-shaped, oval, acute-pointed, sawed leaves, growing upon very smooth foot-stalks.* Opulus Americana, foliis acuminatis & serratis, floribus albis. Dale. *American Guelder-rose with acute-pointed sawed leaves, and white flower.* . . . The eighth sort grows naturally in Carolina, and some other parts of North America; this rises with a shrubby stalk eight or ten feet high, sending out many side branches, which are covered with a smooth purple bark, and garnished with heart shaped oval leaves ending in acute points; they are deeply sawed on their edges, having many strong veins, and stand upon very long slender footstalks opposite. The flowers are collected into large umbels at the end of the branches; those ranged on the border are male and barren, but the middle is composed of hermaphrodite flowers, which are succeeded by oval berries. The flowers are white, and the berries are red when ripe."

Miller Gard. Dict. (Ed. 8) Viburnum No. 8. 1768.

After reading the above let us read a copy of the original description of *Viburnum alnifolium* Marsh (Arb. Am. 162. 1785). It is as follows:

"6. Viburnum alnifolium. Alder-leaved Viburnum. This grows naturally in Carolina and other parts of America; rising with a shrubby stalk to the height of eight or ten feet, covered with a smooth purplish bark, and divided into several branches. The leaves are heart-shaped, oval, sharp-pointed, deeply sawed on their edges, strongly veined, and placed opposite upon long slender footstalks. The flowers are collected in large cymes or umbels at the ends of the branches; those ranged on the border are male, but the center is filled with hermaphrodite flowers, which are succeeded by pretty large, oval berries, red coloured when ripe."

I do not believe that anyone after reading the above two de-

scriptions will have any doubt that Marshall's description was taken from Miller's! It may be assumed that Marshall had an earlier edition of Miller's Dictionary in which Miller did not use binomial names, and that he was not acquainted with Miller's binomial name.

How Gray (Syn. Fl. 1^2: 10. 1884) came to identify *Viburnum alnifolium* Marsh. with *Viburnum lantanoides* Michx. is not known to me. Torrey & Gray (Fl. N. Am. 2: 18–9. 1841) treated it as an unknown "obscure species." Following Gray, the name has come into universal use for the widely distributed hobble-bush of our northern woodlands. It now seems very evident that both *Viburnum alnifolium* Marsh. and *Viburnum americanum* Miller must be treated as synonyms of *Hydrangea arborescens* L. and that for the hobble-bush we must revert to the older long-established use of *Viburnum lantanoides* Michx.

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A GREEN FORM OF TRILLIUM SESSILE

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In the spring of 1926 near Bethany, West Virginia, there were found one and one-half miles east of Bethany College, green trilliums growing in close association with the purple *Trillium sessile* L. Some of these plants seemed to be intermediate between the green and purple forms, having the yellowish-green petals more or less streaked with purple, while others had not a trace of purple about them. The spring of the present year (1927) the green trillium was found and studied more carefully. Fresh specimens were sent to Dr. O. E. Jennings of the Carnegie Museum, Pittsburgh, Pa., for examination. After careful measurements of all the parts had been made and all other characters noted, it was decided that the plant was a green form of *Trillium sessile* L., but one sufficiently well marked to deserve a form name of its own. The name suggested, therefore, is *Trillium sessile* forma **viridiflorum.**

This green trillium grows very closely associated with the ordinary purple form in rich soil on a moist hillside, facing southeast. The flowers of the two forms open at the same time,